

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Application No.: 10/642,572

REMARKS

Review and reconsideration on the merits are requested.

Applicants would like to thank the Examiner for a brief telephone interview granted concerning this application where the Examiner indicated that the objection of the specification was to the title (which has been corrected) and that all priority papers have been received.

Turning first to the objection of the specification, the title of the Examiner is adopted.

Withdrawal of the rejection is requested.

The prior art: US 5,804,282 Watanabe (Watanabe).

The rejection: claims 1 and 2 are rejected under 35 U.S.C. § 102(b) as anticipated by Watanabe.

The Examiner's position is set forth in the Action and will not be repeated here except as necessary to an understanding of Applicants' traversal which is set forth below.

Claim 1 is amended by calling for --resonator for use in a marker in an electronic article surveillance system--. The specification is appropriately corrected at certain points to reflect the above limitation. Support occurs at, for example, page 1, lines 4-6 and lines 12-15 and page 6, lines 2-9.

New claim 3 is added finding basis in the specification at page 6, lines 24-25, page 8, lines 12-20 and especially in Examples 1-7 (e.g., page 9, line 11 and Table 1 at page 12 of the specification (e.g., Examples 6 and 9). Claim 3 clearly avoids any anticipation rejection over Watanabe.

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Applicants traverse the rejection of claim 1 as amended and rely upon their traversal regarding claim 1 to establish the patentability of claim 2.

Major features of the claimed invention are found in a resonator comprising an amorphous alloy ribbon having a width of 7 mm or less and a thickness of 18 μ m to 23 μ m used as a marker in an electronic article surveillance system.

As described in the present specification at pages 4 and 5, an effective way to increase the output signal from a resonator during operation of a transmitter is to increase the thickness of an amorphous alloy ribbon to such an extent that a crystal phase is not remarkably generated in the ribbon. This is accomplished by reducing the cooling speed of the ribbon during casting of the ribbon. This result is further based on the confirmed theory that the greater the cross-sectional area of a resonator (amorphous alloy) in the width direction thereof, the larger the output signal of the resonator. Resonators as small as 7 mm or less in width have recently come into use to reduce the size of article surveillance systems. Such narrow resonators use thick amorphous alloy ribbons so as to have a large cross-sectional area. See page 4, line 28 to page 5, line 9 of the specification.

However, in accordance with the present invention, although an output signal emitted from the resonator during operation of a transmitter is smaller than the output signal from conventional resonators due to the film thicknesses thereof, as thin as 18 to 23 μ m in an amorphous alloy ribbon having a width of 7 mm or less, the level of an output signal emitted from the resonator after stopping the transmitter shows that the resonator for use in an article surveillance system comprising an amorphous alloy ribbon having a thickness of 18 μ m to 23

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μm is higher than that of conventional resonators comprising an amorphous alloy ribbon thicker than 23 μm. What is actually received from a resonator used in a marker in an electronic article surveillance system is an output signal emitted after operation of a transmitter is stopped. Accordingly, as a practical matter, the resonator of the present invention provides higher output signals. Applicants advise that experiments by the inventors herein have established that the resonator for use in a marker in an electronic article surveillance system in accordance with the present invention provides an increased output signal with reduced uncoupling. See the present specification at page 5, line 12 to page 6, line 1.

In contrast to the claimed invention, Watanabe discloses a magnetic core obtained by using an alloy ribbon having a high squareness ratio, particularly at a high frequency, and a small saturation inductance. See Watanabe at column 2, lines 1-4. However, although Watanabe discloses an amorphous alloy ribbon having a width of 5 mm and a thickness of 5-25 μm (see Watanabe at column 6, lines 43-46 and column 11, lines 43-44), Watanabe does not teach or suggest the concept of using an amorphous alloy ribbon as such for a resonator for use in a marker in an electronic article surveillance system.

Accordingly, Applicants respectfully submit that the present invention, as reflected in claim 1, is not anticipated by nor rendered obvious by Watanabe.

Applicants rely upon the above arguments to establish the patentability of claim 2.

With respect to claim 3, quite clearly claim 3 is not anticipated by Watanabe.

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Withdrawal of the rejection and allowance is requested.

Respectfully submitted,



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